

the confluence of the shelly matter. The impending wing also shews a greater tendency to a retroverted and tabular form.

It is probable that SOWERBY'S *Cyclostoma bilabiatum*, from Salem in the Madras presidency, will form a fourth species of *Pterocyclos*, distinguished by the sinuated addition at the back of the true lip. When I examined it in London, I thought that it was identical with *P. rupestris*, and that my specimens of the latter had not attained their full growth; a further search in the locality of the species, and the consideration that the sinuated lip must have been of previous formation to the reflected circular aperture, have contributed to alter my opinion on the subject.

*Cyclostoma suturale* has the aspect of an immature *Pterocyclos*. Its habitat is, I believe, Demarara.

I had prepared the whole of my notes on the collection both of land and fresh-water shells during a period of leisure previously to the close of last year, but I have since then been prevented by want of time from correcting and arranging them. Dr. PEARSON'S hint, in his report on the Museum, has called forth this first brochure, consisting of the land-shells, I fear in rather an unfinished state, for which I trust that circumstances will prove an apology. The fresh-water shells shall follow at the earliest practicable period.

V.—Description of two new species belonging to a new form of the Meruline Group of Birds, with indication of their generic character.

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These birds have the wings, tail, and feet of *Turdus*; and if we continue the comparison from the external to the internal characters, we find a similar construction of the tongue, stomach, and intestines in both.

Both, too, have a similar regimen, habits, and manners. Yet they are strikingly contradistinguished by the respective forms of the bill. In the thrushes that member is compressed, and has its arched maxilla freely exerted from the frontal feathers, and very little cut out by the nasal fossæ. In the birds now in question, on the contrary, the bill is so much depressed as to be more than twice as broad as high at the base; and its straight maxilla, greatly incumbered by the frontal plumes, has the nasal fosse so far produced to the front as to pass the centre of length of the bill.

In the birds before us, too, the head is furnished with a garruline crest; which is never observed in *Turdus*. The tarsi are lower than in the generality of thrushes; and the tail is somewhat longer and less even at the end. Like most of the Nipalese thrushes, these birds are common to all the three regions of the kingdom. They are shy in

their manners, adhere exclusively to the woods, live solitarily or in pairs, breed and moult but once a year, nidificate on trees, and feed almost equally on the ground and on trees. I have taken from their stomachs several sorts of stony berries, small univalve mollusca, and sundry kinds of aquatic insects.

These birds are not generally or familiarly known to the Nipalese, but the foresters, whom I have met with, denominate them *Cocho*: and by that name, latinised into *Cochoa*, I have designated them generically in my note book.

As a *Meruline* genus, placed close to *Turdus*, the following character may perhaps serve to mark them.

Wings, tail, and feet, as in *Turdus*.

Tarsi rather lower and tail somewhat longer.

Bill straight, considerably depressed: the maxilla excided beyond the centre by the nasal fosse: the nostrils very large, and nearer to tip than to gape. Head crested as in *Garrulus*. The two species at present known to me I shall call, from their prevalent colour, *Viridis* and *Purpurea*.

The following is their description:—

*Cochoa purpurea*. Purple Cocho, Mihi. Male, dark purple: cheeks black: crest, tail, and upper apert portion of the wings, soft grey blue, more or less purpurescent: lower part of the wings and tip of tail, black; and both black internally: a white speculum on the wing, just below the false wing: bill and legs black: iris brown. The female, brown where the male is purple; and the upper part of the wings also brown. The young are rufous below with black bars: brown above with rufescent white drops: head blue as in maturity, but barred. The species is eleven to eleven and a half inches long by sixteen to seventeen wide, and weight three and half to four oz.

*Co. Viridis*. Green Cochoa, Mihi. Brilliant parrot green, paler and changing into verditer blue on the belly and thighs: crest, cheeks, and neck posteadly, brilliant blue: upper part of the wings and tail, the same, but paler with a grey cast; and both black internally, and apertly towards the ends, as in the preceding species; through the eye to the nostrils black: bar of same hue across the pale portion of the wings, caused by the long coverts and bastard wing being tipped with that colour: legs fleshy brown: bill black: iris brown: size of the last: sexes alike.—N. B. This species is apt to vary considerably before it has reached maturity as well as under moult, when the back is sometimes lunated with black; and the soft blue portion of the wings is smeared with brownish yellow. At first, the young males are exactly like the female. The following more particular description of

the several members and organs is equally and exactly applicable to both species.

Bill to head as five to four : sometimes merely equal to the head : considerably depressed, except near the tip ; at base more than twice as broad as high ; straight ; culmen produced among the frontal feathers, which are soft and turned back ; sides of the maxilla cut out beyond the centre by a broad membranous and plumose fosse : tomixæ locked, trenchant, and entire ; towards the gape somewhat incurved—towards the tip, straight : tip of upper mandible inclined and notched ; of the lower, subrecurved and subemarginated, sometimes straight and entire. Nares nearer to the tip than to the gape ; at fore end of the nasal fossæ, lateral, longitudinal, elliptic, large, free, shaded above by a small nude process of the fossal membrane, and set over with tiny incumbent hairs : gape scarcely to the fore angle of the eye and subciliated : wings reaching to centre of tail, firm, first quill bastard, second long, fourth longest ; all four slightly emargined on their inner web. Tail composed of twelve firm feathers, rather longer than in *Turdus*, the four laterals gradated in a small degree, more than in *Turdus*.

Tarsi submedial, stout, rather longer than the central toe, usually smooth, sometimes crossed by three or four scales.

Toes simple, ambulatory, compressed, moderately unequal ; outer basally connected ; hind stouter and subdepressed.

Nails compressed, obtuse : the central fore with both margins dilated but entire.

Head furnished with a soft, full, garruling crest. Tongue simple, flat, medial, subcartilaginous, with cartilaginous, subjagged, tip. Stomach muscular, of medial subequal thickness, the lining tough and grooved. Intestinal canal 20 to 25 inches long, of subequal calibre throughout ; close to anal end, two grain-like cæca.

The intestines are longer in proportion than those of *Turdus* : but otherwise similar.

VI.—On a New Genus of the *Meropidæ*.—By the same.

Order INSESSORES ; Tribe FISSIROSTRES ; Family *Meropidæ*, *Vigors*.

Order PASSERES, Section SYNDACTYLI, *Cuvier*. Genus new. *Bucia*, *Mihi*.

Generic character :—

Bill much elongated and arched throughout, strong, greatly compressed ; the sides nearly vertical, and the ridge flattened towards the base. Wings moderate, full, not acuminate, fourth quill longest,